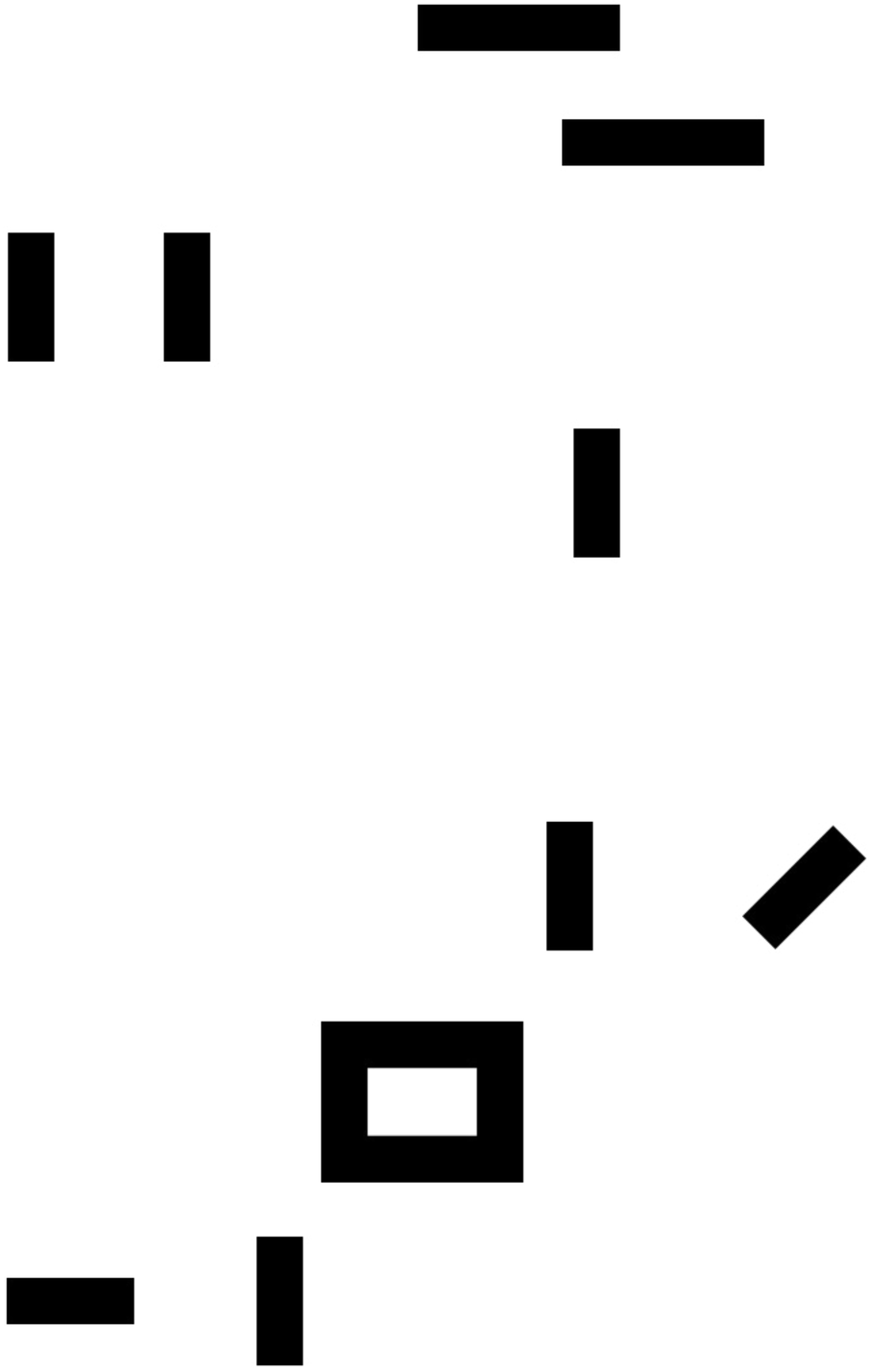
Heterotopias 001 | February 2017

Games as Objects | Virtual Architecture | Space and Representation



Heterotopias 001

Created and edited by Gareth Damian Martin

Guest contributors: Chris Priestman and Darran Anderson

Lab processing by Ilford

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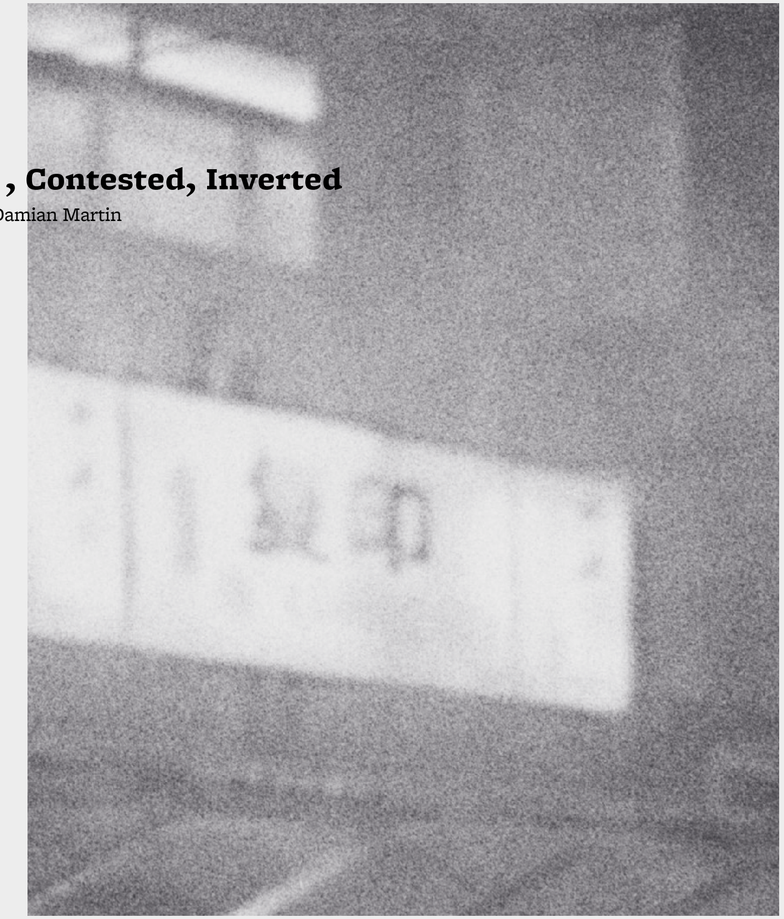


Represented , Contested, Inverted

Introduction | Gareth Damian Martin

In 1859, in response the advent of early photography, Oliver Wendell Holmes wrote that from that day on: ″Men will hunt all curious, beautiful, grand objects, as they hunt the cattle in South America, for their skins and leave the carcasses as of little worth.″ The era of the image had arrived, and he saw a future approaching, where ″form is henceforth divorced from matter.″ That future is our present.

We are outnumbered by virtual worlds, overwhelmed by virtual architecture. Videogames and digital art have furnished us with a hundred thousand matterless forms--landscapes where no rock or earth has ever been present, cities founded on depthless skins of image and texture, expanses that will never see the light of a true sun.

And yet, somehow there is material here, a new kind of matter. Some of it is borrowed—photographs, texture references, photogrammetry. Other parts are inherent properties of digital worlds—their obsession with surface, the logic of their light, their base particles; pixels, voxels, polygons. When in *The Beginner's Guide* Davey Wredin brings the player's attention to the flat grey square that marks the limit of a level's starry skybox, calling it ″the bottom of the universe″ he points to an odd truth: These worlds, these universes, are objects, and unlike our own, they have limits.

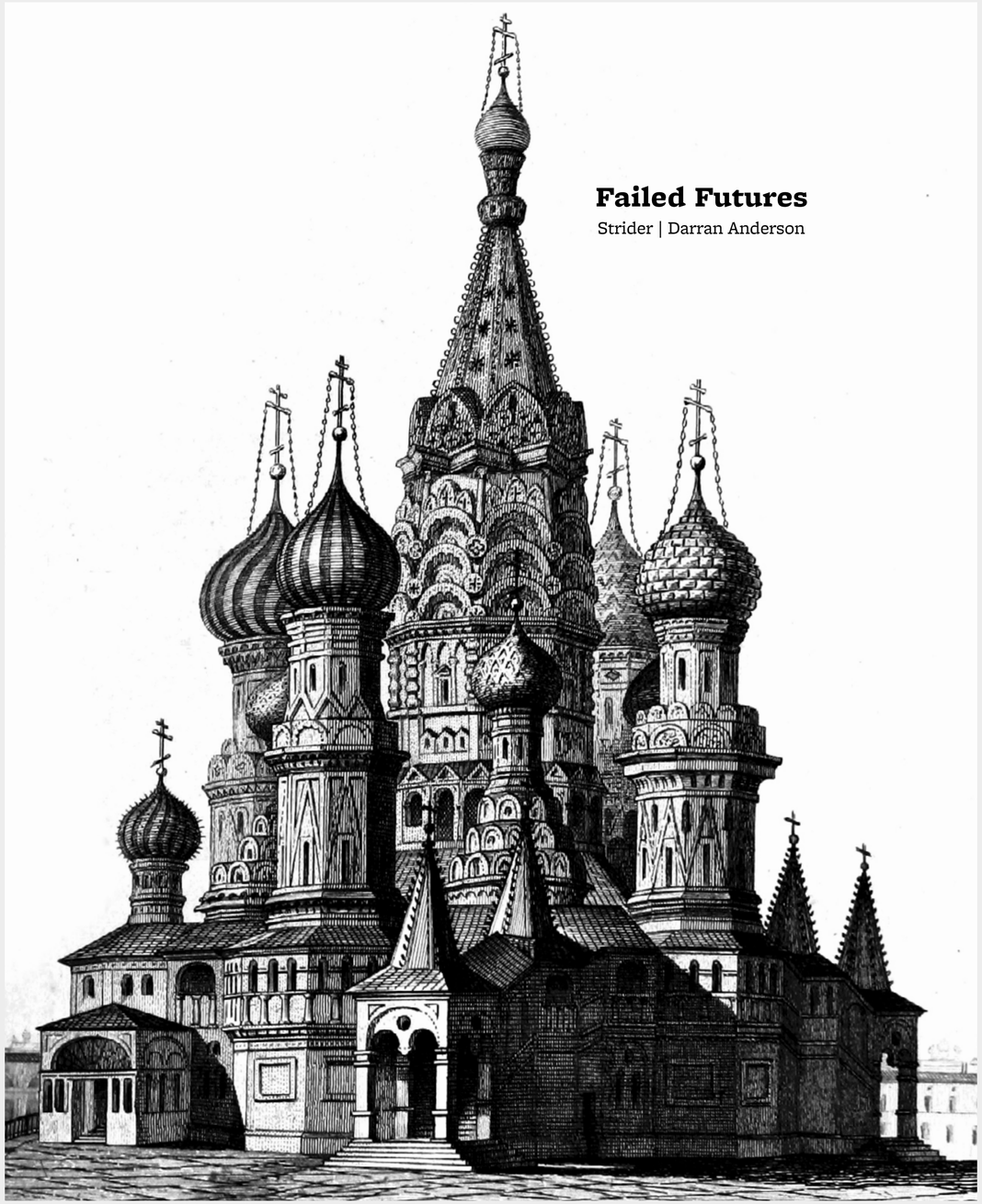
This is a perspective we rarely take. As the audience of these virtual worlds their total fictions are seductive, intoxicating. We want to believe. And yet, in this blinkered state we close ourselves off to the unearthy wonders in front of our eyes. Virtual worlds are strange mirrors.

The name *Heterotopias* comes from Michel Foucalt. It refers to sites where real spaces are, in his own words ″simultaneously represented, contested, and inverted.″ What better name could there be for our objects torn free of matter, our virtual worlds? They are, in the end, representations—cultural objects that connect to history and politics (as both guest writers, Chris Priestman and Darran Anderson, show with their pieces on *Strider* and *Tomb Raider*.) They are contentious, constructing arguments from architecture and space, as I indicate in my piece on *Inside*. And they are inversions, as is clear of *Kane & Lynch 2*'s Shanghai: ″the city turned inside out″.

This zine is part of a project I have dreamed of for a while, a process where, in an echo of Wendell Holmes, we hunt the skins, with the intention of connecting them back to the matter they have forgotten. To make them real once more.

GDM

These worlds, these universes, are objects, and unlike our own, they have limits.



Failed Futures

Strider | Darran Anderson

In 1988, the Soviet Union was coming apart at the seams. The Hammer and Sickle still adorned the official flags. Soldiers still guarded the death strip of the Berlin Wall, or the Antifaschistischer Schutzwall, as they called it in the satellite state of the GDR. Statues of Lenin, Marx, Engels still scowled from the buildings like concrete gargoyles. Yet a glorious future, if it ever could have existed, was far behind them. The economy had stagnated, the republics were surging towards independence, the people were rising. The Kremlin still had precarious control over the world's largest state. They still had a vast nuclear arsenal. And they still had men in space, namely Aleksandr Aleksandrovich Volkov and Sergei Konstantinovich Krikalev. Two years later, the pair would be the last Soviet citizens, witnessing the end of the USSR whilst floating in the Mir space station.

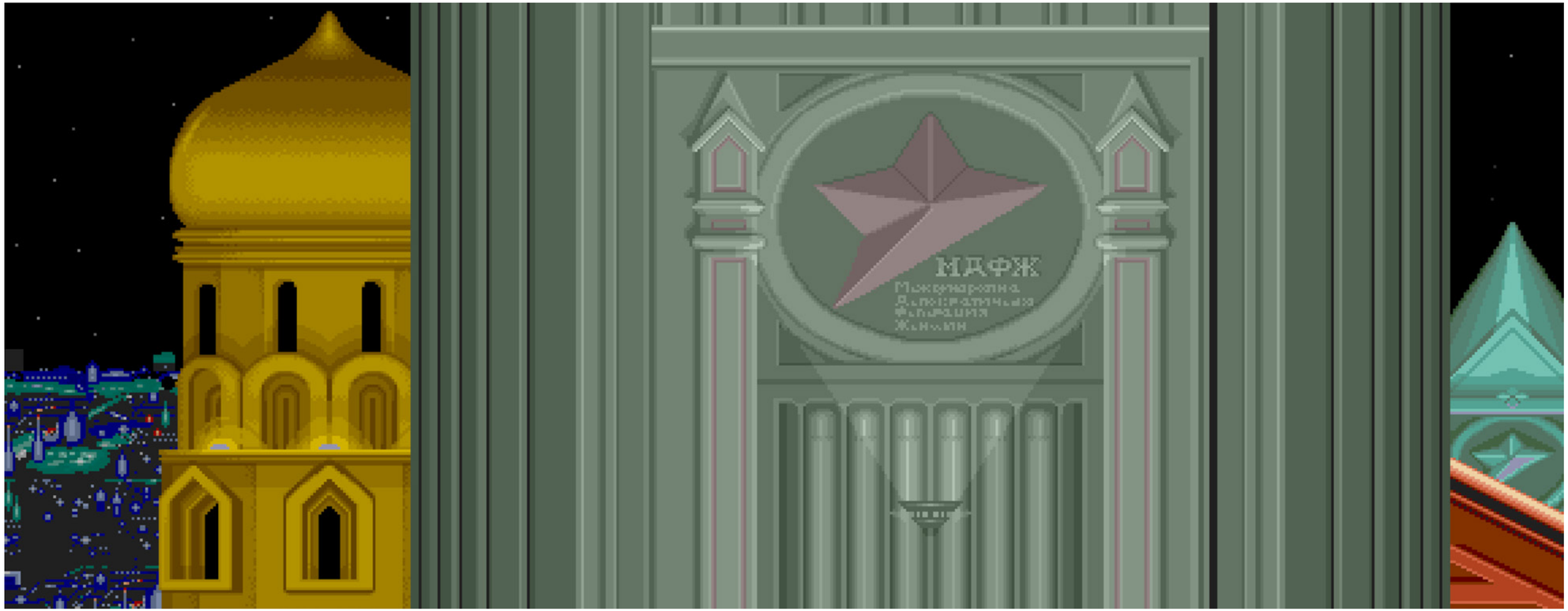
The full extent of the imminent Soviet collapse was not known, to the outside world at least, when Kouichi Yotsui and his team were developing the *Strider* arcade game for Capcom. By the time of its release in 1989, there was barely a Kazakh Soviet Republic, let alone its future hyper-mechanised counterpart. Reality had made the project even more speculative than it had been at its conception.

The Soviet future, and even its present, was a rarity in games, cropping up from time to time as the target in bombing simulators or as Red Square adornments in versions of *Tetris*. The jeering factory workers behind the lumbering Russian bear Zangief (original name, "Vodka Gobalsky") in *Street Fighter II* were as close as we came to glimpsing behind the Iron Curtain. In those days, programmers often compensated for the limitations of two-dimensional games by creating ornate backdrops; pixellated cities we could never reach. From a distance, they would appear utopian or dystopian, just as the Soviet Union, to the distant outsider, could be either a 'Brave New World' or an 'Evil Empire', depending on the need.

The environment of *Strider* is intriguing partly for its real-life inspirations. Its very first scene has the ninja Hiryu gliding in to infiltrate the city via the rooftops; a mildly subversive touch given most games of the kind began at street level and worked their way upwards. Hiryu is immediately framed against the background of Russian Orthodox cathedral spires. These are not the gloriously-colourful onion domes of St Basil's Cathedral, commissioned by the maniacal Ivan the Terrible, who reputedly had the architect Postnik Yakovlev blinded so he could never design a building as beautiful for anyone else. Rather, they belong to the golden helmet

A glorious future, if it ever could have existed, was far behind them.

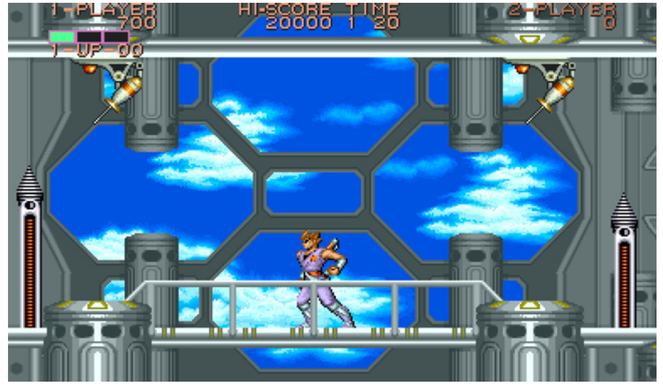
Left: St. Basil's Cathedral, Johann Heinrich Blasius, 1844.



Top: A composite image of Strider's opening skyline.

Right: A distinctive blend of Russian Orthodox architectural motifs and 1980s science-fiction structures.

A series of speculative tropes... It is what the future used to be.



The mech-addled Soviet futurism imagined in Strider was by no means alone.

style of domes, the gold symbolising Christ's glory, such as the Cathedral of the Annunciation in the Kremlin and especially the Golden Ring of Russian cities including Vladimir and Yaroslavl.

As Hiryu slides and leaps across the rooftops, we see other buildings. There's a vaguely Stalinist neoclassical skyscraper adorned with a red star, with one point missing. In reality, the red star as a Soviet symbol had been most likely an invention of Trotsky's during the Russian Civil War. As secular replacements of the crucifix, three-metre-long stars of steel and ruby glass were hoisted above the Kremlin. They were there to represent, with the five points of each star, the eventual Communist conquering of the five continents of the world. Though the Red Army had its push westward halted by the Polish Army in 1921, and Stalin would eventually declare his focus to be 'Socialism in One Country', communists still held onto dreams of world domination and the Marxist liberation of the global proletariat.

It was a dream that had long since passed into nightmare within the USSR. In *Strider*, the star is incomplete, with the lead character the only thing standing in the way of the absolutist rule of the Grandmaster, when all five points might be conquered. Yet it is worth recalling another force, more familiar to the programmers, with the five-point star as a symbol, emblazoned on their uniforms; the Imperial Japanese Army who had caused untold suffering in their so-called Greater East Asia Co-Prosperity Sphere and ultimately brought Japan to the brink of annihilation.

With its Russocentric focus, it seems puzzling that *Strider* is set in Kazakhstan, a sparsely-populated land of steppes and canyons far from the Soviet metropolitan centres of Moscow and Leningrad. Yet Kazakhstan was a hinterland that led into space, and space was once thought to have been the future. On the vast Kazakh dry-land plains, next to a city once called Leninsk, is the Baikonur Cosmodrome. As the major site of Soviet launch facilities, it was the cosmonautic gateway to the stars and with it, from the spectre of Sputnik onwards, the commanding heights over the planet. Dominance would come not just militarily but technologically.

As idiosyncratic as it seems, the mech-addled Soviet futurism imagined in Strider was by no means alone in its eccentricities. Since the early days of Bolshevik electrification and agit-trains, there had been countless actual proposals ranging from the visionary to the preposterous; Tatlin's rotating tower and his Letatlin flying machines, Krutikov's soaring apartment buildings and El Lissitzky's sky-hook horizontal skyscrapers. Some went beyond architecture and into the engineering of souls with Ivanov's ape-human hybrid attempts or Krasin's belief in cryogenics, reanimation and immortality. Even the great writer Gorky envisaged "man as a machine." *We,* Zamyatin's unnerving portrait of totalitarian conformity and the model for countless dystopian books and films to follow, came out of not both this milieu, and various worldwide trends towards eugenics, Fordism and the perfectibility of humanity. Its chilling vision is revived in the aims of the villainous Grandmaster in *Strider*, who intends to replace the human race with automatons, prototyped in the bayonet-wielding robo-Cossack troops, levitating drone Mosquemen, and ushanka-wearing mini-bots, which Hiryu battles his way through.

Suspicious of intellectuals to the point of collective murder, Stalin curtailed these more artistic elements of Soviet futurism but maintained his own grand projects, such as the ship canals, hyper-industrial cities like Magnitogorsk, and the social engineering. Much of this gargantuan central planning was directed into the space program after Uncle Joe's death. Having failed to transcend humanity or build the long-fabled Marxist version of the 'Just City', hopes were directed skyward. These visions appeared in illustrations by the likes of Andrei Sokolov for the youth magazine *Tekhnika Molodezhi,* though these were more than childhood fantasies: In February 1958, Albert Parry of the Science Digest interviewed a Professor Varvarov of the DOSAAF (dedicated to the "patriotic upbringing of the population and preparation of it to the defence of the Motherland") about Soviet dome cities to be located within shadowy craters on the moon.

It would be easy to dismiss such plans as speculative fictions were it not for the fact that speculative fictions gave us the actual space programs of the 20th century. Goddard, Tsiolkovsky, and Oberth, the three fathers of astronautics, created the fledgling science due to childhood enthusiasm for Jules Verne and H.G. Wells' novels. Science-fiction mattered. Significantly, this was not an intrinsically good thing; Leo Szilard triggered the Manhattan Project, which would deliver the world its first nuclear weapons, having been inspired by Wells' *The World Set Free*. Sci-fi offered many preposterous futures of which our own actual time was merely one.

One place dreamed into being by Soviet scientists and fantasists was the Baikonur Cosmodrome. Its supporting city Leninsk was a Soviet 'closed city'; one of many metropolises where outsiders were banned, and every citizen needed to both

The USSR was a cracked mirror to outsiders.

have security clearance and keep their activities under strict state secrecy. These cities were often absent from public maps and were involved in quasi-military activities often around the nuclear, mineral extraction, and space industries. When Strider Hiryu flies into one of these heavily-militarised cities, with searchlights beaming, he enters top-down as many urban explorers and burglars do (see Geoff Manaugh's superlative *Burglar's Guide to the City*), opening up the closed city, breaking into its secrets. His presence is manifestly an intrusion. What he uncovers is less a succession of sinister masterplans so much as a series of speculative tropes, often of distinctly retrofuture origin. There are electrical arcs that recall Nikolai Tesla, mechanical airships in the vein of Albert Robida, resurrected dinosaurs calling to mind *The Lost World* of Arthur Conan Doyle. Indeed the most genuinely forward-facing aspect to the levels that follow is Hiryu's embracing of something resembling parkour. The rest is essentially an updated late 19th century/early 20th century futurism. It is what the future used to be.

In this way, *Strider* appears to fit as a curious epilogue to the Soviet sci-fi tradition of 'fantastika'. This was built from, or at least informed by, actual innovations. Sometimes these were premature or botched and exist as intriguing tangents like Antonov's winged tanks. At other times they blazed a lasting trail. The Soviets engineered the first militarised-robot in the Teletank, the first jetpack (by Andreyev in 1919), the first artificial heart (by Demikhov in 1937) and, of course, the first spaceport in the Baikonur Cosmodrome. Inspired initially by popular speculative writers like Verne, Russian writers took inspiration from the experimental culture in the USSR, as well as critiquing it. The "mad science" of *Strider* has many precedents here. In Aleksey Nikolayevich Tolstoy's *The Hyperboloid of Engineer Garin*, a death-ray wielding megalomaniac attempts to take over the world. In Belayev's *The Air Seller*, a tyrant seeks to ransom the world's oxygen. Some of these schemes would be costly in the real-world: Formerly a leading Bolshevik, Alexander Bogdanov wrote the utopian novel *Red Star*, set on a communist Martian colony. Its inhabitants maintain their youth through blood transfusions, an experimental procedure that, when he attempted it himself, would cost Bogdanov his life. Even the dinosaurs that surprisingly appear in *Strider* are part of the lexicon of early Russian sci-fi, appearing in Obruchev's *Plutonia* for one.

And yet, bar aesthetics, *Strider* does not entirely belong to these worlds, despite being tethered to the USSR. The game is, after all, Japanese or rather a Japanese

Above: a painting of the launch of the Buran shuttle at Baikonur cosmodrome in 1988.

view of how a future Soviet Union may have looked. Its occidentalism tells us more about its originator than its subject. Relations between the two neighbouring countries had been distant and suspicious for over a century, clashing over competing interests in Korea and China, before Japan delivered a debilitating blow to the Tsarist Empire in the war of 1905. The technological advancements of the Soviet Union may have fuelled this rivalry but arguably Japan's own cultural view of technology is more telling. Science-fiction in Japan was just as much obsessed with threats as any other culture but the manner in which history was absorbed and digested through its works was singular.

As much a vision of an alternative Japanese past as it is of an alternative Russian future.

The father of Japanese sci-fi Shunrō Oshikawa wrote many tales filled not just with airships and submarines, but rousing invocations of Japanese expansionism against the Russians and the West. These were mitigated by the work of Jūza Unno who wrote dystopian fictions, railing against colonialism and the abuse of technology to make citizens docile, until he was swallowed up in the war fever that engulfed the country in the 1930s and '40s. When the Empire of Japan finally fell, having taken millions of lives across Asia, the trauma of loss and the suffering of the Japanese people themselves in bombing campaigns was absorbed allegorically into culture. All sorts of unlikely figures emerged into the public consciousness. Having directly experienced and narrowly survived the fire-bombing of Osaka as a teenage lookout, Osamu Tezuka created the robotic peace-loving *Astro Boy*. Meanwhile, the existential threats posed to cities by Kaijū like Godzilla, Mothra, and King Ghidorah came not only from the omnipresent earthquake risk but from the shadows cast by the mushroom clouds of Hiroshima and Nagasaki. The menace was always there (protected against by characters like *Ultraman*) just as the memories are. The tabula rasa levelling of Tokyo and its replacement by the glimmering Neo-Tokyo in Akira is the most explicit representation of this tendency. Japan began again, but there is never really a blank slate.

Strider belongs to this lineage even more than the Soviet retrofuture it is transplanted onto. Indeed, it goes further back into Japanese history, with the Grandmaster in *Strider* resembling not just the caped character Ōgon Bat but earlier mythic Oni demons, perils of a pre-modern world and perhaps even still. The subliminal connection to Japanese legend is underlined by the movement and attack of Hiryu, which calls to mind the startling dynamism of Utagawa Kuniyoshi's ukiyo-e. This is as much a vision of an alternative Japanese past as it is of an alternative Russian future.

By the late eighties of *Strider*'s release, the Soviet Union no longer quite appeared "a riddle wrapped in a mystery inside an enigma" as Churchill had deemed it. Yet for all the internally and externally-liberalising policies of Gorbachev, it still presented a carefully-controlled image to the outside world. Though President Reagan had dropped his claim that it was shrouded in "totalitarian darkness" and relations with the West were thawing, the Soviet Union and Japan remained bitterly at odds over a long-running dispute over ownership of the Kuril Islands. During such standoffs, in a climate of mutual suspicion and secrecy, myths, rumours, and prejudices proliferate. All manner of projections are made onto the opposing side with only passing basis in reality. What *Strider* creator Kouichi Yotsui knew of the Soviet Union would have been, as it was for many then, pieced together from fragments and accentuated with fictions. The setting was Kazakh but it was really an oblique reflection of its creators. The USSR was a cracked mirror to outsiders, regardless of what it really was.

Strider tells us something that goes beyond occidentalism. The Soviet Union lay outside the dominant hegemonies in Japan and the West. It was a continual threat but also a reminder that alternatives existed, for better and worse. We knew, even then, that there are other stories, locations and histories that have been buried, just as we knew there were other possible futures. With the advent of the internet, these became much more difficult to ignore. Our desire for retrofutures now is partly a tacit admission of guilt for overlooking vast swathes of the globe and the past. It is also partly a creative ransacking of these places. We come across Da Vinci's 'Profile of a Warrior in a Helmet', Seusenhofer's 'Horned Helmet for Henry the 8th' and Dürer's 'Triumphal Procession for the Holy Roman Emperor Maximilian I' and we create clock-punk or gold-punk or some other absurdism. We read Jules Verne and we channel whole worlds into the cosseted fashion of steampunk. We go back and affix the telltale attachment –punk to our discoveries and negligence. We do so, not simply because they are novel but because the could-have-beens and the once-were are escapes, however momentary, from the here and the now. In this way, they chime with our contemplations of the past and the future. Escape and the comforting illusions of virtual elsewheres are, after all, the essence of games. What they say to us between the lines suggests what we are escaping from; a certain narrow view into a wider, deeper one. *Strider* is a gaze into a future that will never come and it is the gaze itself that intrigues.

DA

Darran Anderson is a Irish writer & infidel living in exile. He is the author of Imaginary Cities and the co-editor of 3:AM Magazine & Dogmatika. He occasionally writes for The Guardian, Aeon, The Quietus, Gorse and Vice.

Stray Dogs, Strange City

Kane & Lynch 2: Dog Days | Gareth Damian Martin

The opening shot of *Kane & Lynch 2: Dog Days* is of a cheap consumer-grade camcorder, its fold-out LCD screen showing the titular protagonists being tortured by an unseen hand; bloodied, blown-out and bruised with noise, sitting just out of frame.

It is a shot which is reflexive in the extreme, its central image-within-an-image muddled with a haze of digital noise, as if the camera-eye we are witnessing was turned, impossibly, on itself. It creates an unsettling distance, the sense of an inhuman perspective set at a remove from the acts of violence it depicts. The player will witness everything through this cold, unsteady camera-eye, not just the bloody but oddly unspectacular violence they direct, but also the city that shelters it: Shanghai, made exotic not just through its strangeness but through the opacity of the lens we are given to view it through.

K&L2's Shanghai is impossible to separate from this perspective, from the humming digital noise, acrid lens-flares and compression artefacts that populate its streets as if they were its citizens. This is not just because of their aesthetic ubiquity, but also because of how it has been built. The noise, the compression, the color distortion has all been baked into the digital masonry of this flickering city. Its skyscrapers don't end in neat edges; they explode into an over-exposed sky. Its textures and surfaces are not just detailed with the imagined stains, decay and damage of an invented world, but also the distortions and errors of a flawed camera-eye.

So when I sought to capture this singular depiction of a strange city, to explore its aesthetic codes and consequences, I wanted to do so without stripping it of its powerful materiality. Perhaps one of the most fascinating things about *K&L2* is how its precise observation of the material qualities of cheap camcorder lenses and sensors brings attention to the screen it is played on. The LCD panel sitting before the player is recast from unsightly barrier to a collaborative canvas, its own distortions and limitations elevating and harmonising with the game's simulacrum of low-grade video.

This was how the idea of pointing my own camera at this potent screen suddenly became obvious to me, both as a partial recreation of that first image, and a deepening of it, a following of its logic. Now, over the next pages, this strange city flowers with the grain of chemical film too, adding impossible twinnings of analogue and digital to the architecture of noise that defines this city of strays.

GDM

as if the camera-eye we are witnessing was turned, impossibly, on itself.

All images: 35mm B&W, Fujica STX-1, Gareth Damian Martin.

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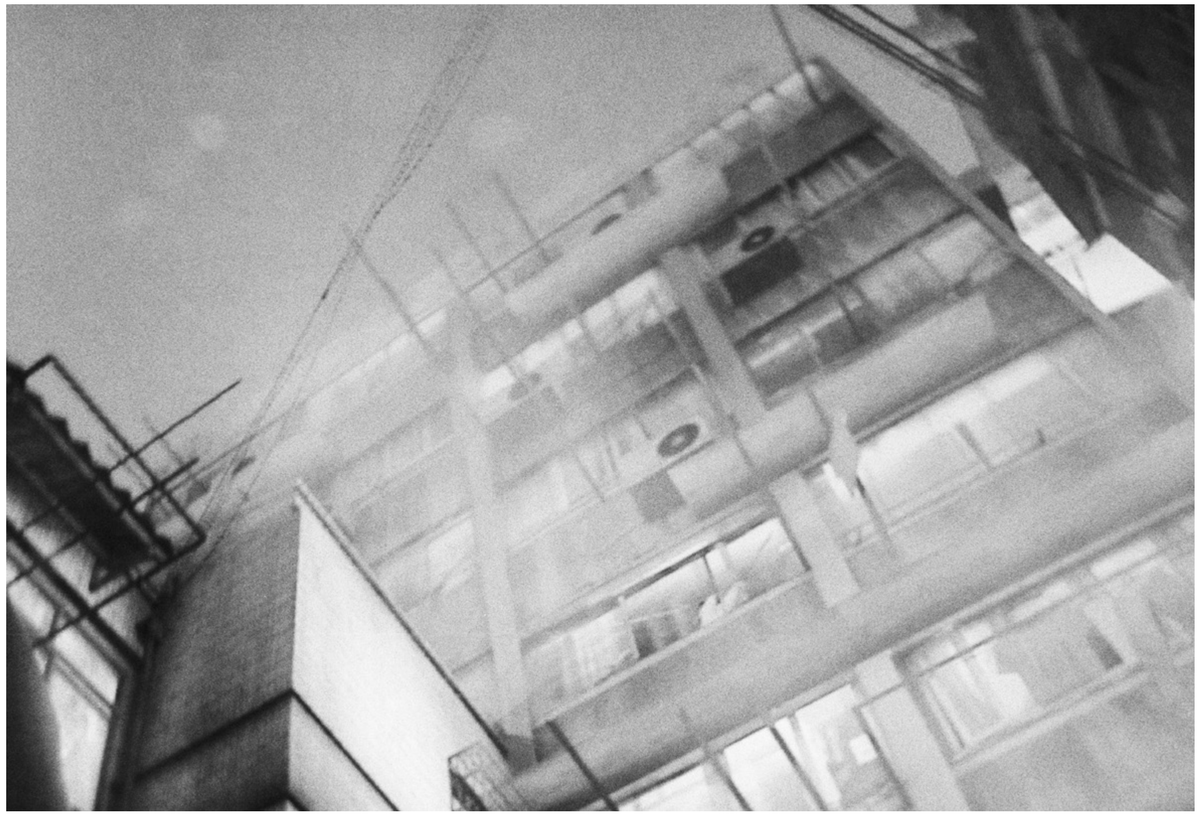


The City Turned Inside Out

A conversation with Rasmus Poulsen | Gareth Damian Martin

GDM: I started my examination of *Kane & Lynch 2* with its opening shot. It has always stuck with me as a confident and conceptually strong image, one that makes a clear statement about the distant relationship we are going to have to the protagonists and the mediated eye we will see the world through. How did it come about?

RP: The core team at the time was me, a concept artist and the creative director. We were the team exploring ideas for *Kane & Lynch 2* and we did a research trip to Shanghai and took some of the pictures I showed you from my website. It really came together when we were filming with whatever camera phone or digital camera we had at the time, filming the locations, and we realised how fantastic they looked with this layer of grainy reality over it. And in that sense, I believe it was the concept artist, Martin, who pitched a little intro. I remember the piece of concept art, and it was just so clear that by filming the camera it becomes almost a 'Macguffin' for the game, for the style of the game, and it sets the tone. And it also sets the idea that we don't have to look directly at the action, we can look over in the corner and still say a lot.

We were inspired by movies and pieces of media that are a little bit more bold than games were at the time and it was a way for us to signal to you what this was going to be, but then also set up the whole premise of the game in one shot. It is very much on the nose, but at the same time, not really, because it wasn't expected from games.

GDM: The image is also made more complicated by the fact that we are looking at the camera through another camera, you don't, for example, show clean footage and then cut inside the lens...

RP: No, that would be going too far, because this is not the camera that films the action of the game, and of course the camera is meta as hell, already. For example the whole notion that when the characters die the camera falls onto the ground, I don't know if you remember that? The camera sort of flops onto the ground, and people are like "wait, wait, who is holding the camera?" Nobody's holding the camera, Who is holding the camera in *Call of Duty*? What do you mean? Or in other third-person games. So we took it one step closer to people being aware of what they were seeing, in a real world sense, but we're challenging their notions of what a game camera is, simply by pushing the human factor of the camera while at the same time making it more meta. Is it a camera man running around after Lynch all the time? No not really, but, kind of. It's a stylistic choice

Rasmus Poulsen was the Art Director for Kane & Lynch 2. He studied Visual Communication and Production Design at the Royal Danish Academy of Fine Arts, and went on to work with IO interactive and Square Enix. He is currently an Art Director on an unannounced title at Ubisoft.

Not the storefront, but the backroom. Not the street, but the back-alley.

where we play with the expectations of the player.

GDM: It reminds me of Mario 64, where you can see in the in-game mirrors that there is a Lakitu sitting on a cloud, holding the camera on a fishing rod. As an early 3D camera, there is a sense that Nintendo felt they had to explain what this thing was, because otherwise, who is holding the camera? Where does it come from?

RP: But all games have cameras that are external to the player, even side-scrollers, back in the day, had external cameras, so by making you aware of it that's a statement. Its not an answer to a question that's been asked, it's an answer to a question nobody asked.

GDM: Going back, you mentioned that before you went to Shanghai, you weren't going to approach the camera in this style, and that the idea actually came from the research trip, is that right?

RP: Yes and no, I would say it cemented it. I remember while on the original *Kane & Lynch*, which was this Los Angeles type, Michael Mann inspired crime drama if you will, which was inspired by cinema. Back then I experimented with working with post processing and colour grading and all that stuff, and I experimented with really really insane effects, that the post-processing wasn't designed to make, like you turn up the knobs and see what happens are like "whoa, hey!" I remember landing on a really really bleached out, overbright look where the bloom effects were scaled up to the point where if people looked at the window the whole screen would bleach out. And it had a camera effect and I was like "wow!" I was really excited about that.

So the idea started on the first game, but it wasn't a fit for the technology nor the stylistic framework that the game existed in. So that idea lived on the development floor a bit, in some of us, and when *Kane & Lynch 2* started we were very inspired by YouTube and the aesthetics of how real looks. It was a fresh way of going for the ever-present realness. So we were dabbling and exploring and I think what happened on the trip was that it was cemented and solidified as something we were going to do, because we weren't sure exactly how grainy and how grim the treatment would be, but we knew it was going to be still very film-inspired. But I think the trip pushed both the artefacts; the vertical streaks that happen when the camera picks up light levels that are too bright for it to function properly and you get that vertical streak, and it sort of pauses, and JPEG compression and all that stuff which then combined with the handheld camera. Everything sort of cemented on the trip because the location lent itself really well to this frantic, unplanned type of filming, and that's the story of the game, that these two idiots fuck about and ruin everything for themselves and it's basically them trying to escape their own nature in a handheld rush through a dirty grimy back-alley. So in that sense it supports the premise and the narrative as well.

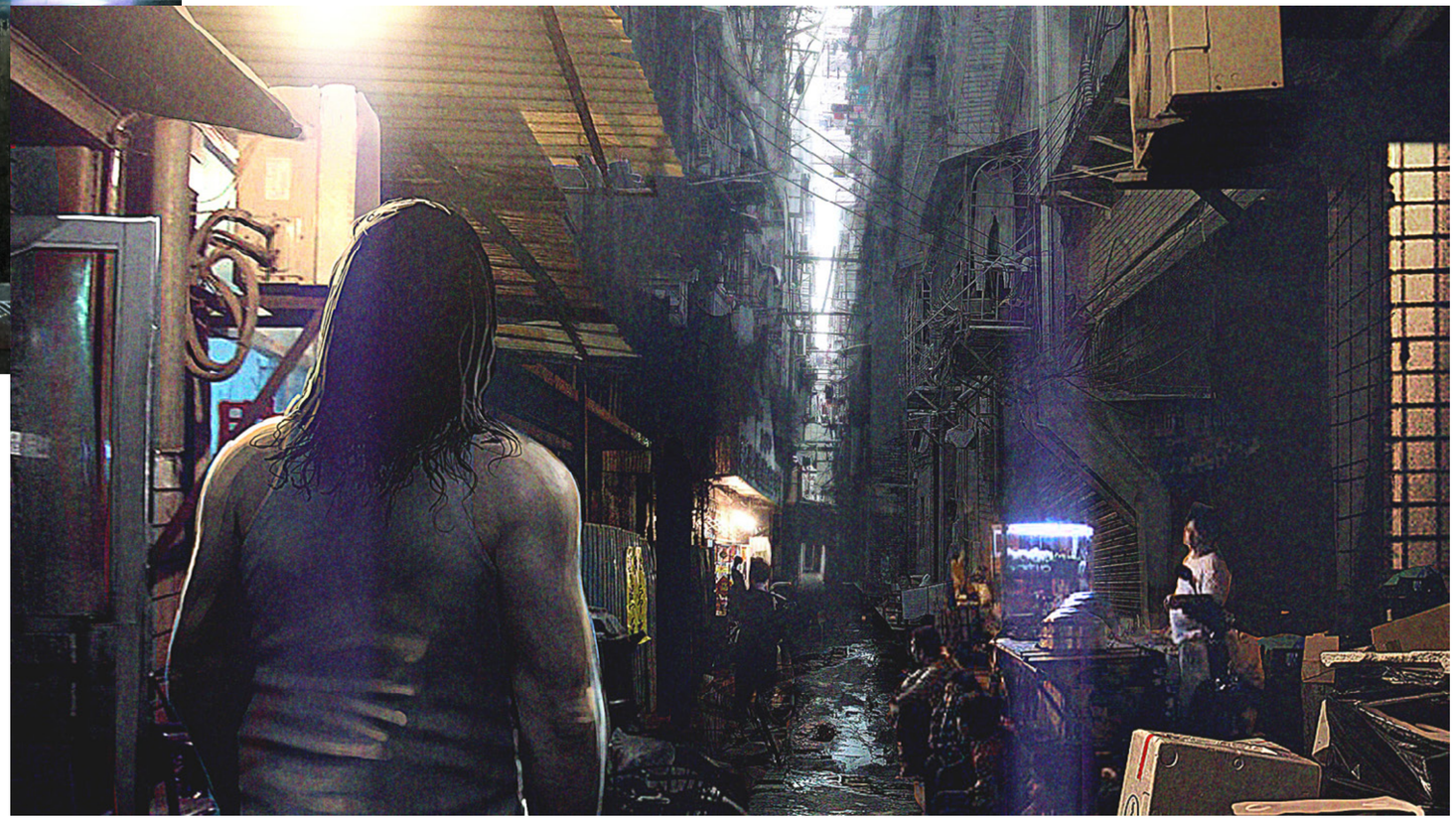
GDM: I am also very interested in the presence of Shanghai in the game, and the idea of this being a city that is built to be filmed. I know you used a lot of effects on the in-game camera, but how did you design the city to support this effect?

RP: What you say about the city being designed by the purpose of filming is very much true, not so much for the visual treatment, or the camera effects, but more for the fact that, as I said before, it's an escape through a part of the city you don't normally see. We talked a lot about the city turned inside out. Not the storefront, but the backroom. Not the street, but the back-alley where all the boxes are stacked. You capture that in your photographs, you have the image of the CRT monitors that are stacked and might not be relevant anymore but they are still trying to sell them, or Styrofoam trash in back-alleys leftover from something. Its all about those traces of humanity that we don't remember, or we don't want to see, and in that sense it once again represents the characters and especially Lynch, who has found some sort of calmness in this world. So of course it's a Shanghai that exists, but where it's 50% back-alleys and 50% neon high-streets in real life, we just said, OK, 80% back-alleys, let's do it. It's a twisted portrait of what Shanghai felt like to us, when visiting.

GDM: And were there any discussions about exoticism and the responsibility you had towards depicting Shanghai?

RP: Well in action games you shoot a bunch of enemies right, so we had a lot of discussions about how it would be perceived, for these guys to just kill off an entire branch of the Shanghai police, and of course you build up a notion that the police is bought by the crooks that are out to get the characters, which is like a shorthand for "don't worry about it", the other shorthand is "oh don't worry it's war, so these guys are our enemies because our president said so". So we played with the idea that you do what you are told in the game, it doesn't have to be right, but you don't question it. So of course we had a lot of discussions about that, especially because the Chinese are sensitive to critique. But you

Left and below: Some of Poulsen and his team's concept art for Kane & Lynch 2.



It's a twisted portrait of what Shanghai felt like to us, when visiting.

could say this is so absurd that it is not really a critique, it could be anywhere in the world and these two characters would mess it all up and kill everyone. It happened in the first game as well, which was spun from LA to Cuba, to South America right? So in that sense we kill everyone equally.

But actually, the game's a sort of a cyberpunk love letter to China, and the future and the past, clashing and meeting in a violent way, in terms of architecture and the layout. It wasn't about the people in that sense. Although, and it's reflected in some of your portraits, that people are a strange part of the backdrop, they just drift by, and I think that's what characters do in games, especially shooter games, you just run through, and you just keep going, and there's no connection. It's that feeling of being like "a fish out of water", because its a game built for a Western market in that sense. But it could have been anywhere, the reason that we chose Shanghai was that it was strange and amazing to us, and it felt like a place you could go hide as a criminal.

GDM: It's appropriate that you say "a cyberpunk love letter", because I think there is a lot of love in this game for back-alleys. Even though the setting is squalid, the art direction in particular seems to be fascinated by things like the rows of trolleys...

RP: I am so happy that you found that.

GDM: That image stands out because it's such a weirdly unnecessary but beautiful detail.

RP: We built as much of that into the game as we could because it's a love letter to the leftovers, when you are done and you go home. That's the back-alley with the trash. That's what the trash is, the trash is what you don't sell. It's when the TV store is closed and the signal is switched off but the TVs are still on, so they are just showing that blue screen that LCDs had at the time, blaring out. It's about the back-side of everything, right? And the trolleys not being used, or being surplus to whatever store has them, or you visit an airport and you go into an area that's not quite renovated with all the junk and the mannequins and it's all so weird.

So what we tried to put to the forefront was all these leftovers of a society that is busy doing something else. In that sense heightening the city without its people, or the city as it looks when people don't try. There is a certain aesthetic to that and I wanted to push that much much more, but of course you don't have time, either production-wise or game-wise because the player is running around trying to survive, and so we used the menu screens as well to get some of that desolation into the game as well. You are sitting in a car looking at the highway. Sitting in a hotel room looking out of a wet window at an airplane behind a skyscraper somewhere. And all those little passive moments that games, at least third-person action games don't have access to normally. It's kind of like *American Beauty*, with that guy filming a trashbag, where you are like "that's so wanky" or "that's amazing". So we tried to capture some of that lonely poetry.

GDM: I think that's what I find so powerful about the game: there are a lot of games with cities, but not so many that are tied to real urban experience. It reminds me of my experience of living in London for 10 years, and how I became fascinated by backrooms and the unseen sides of places. I noticed that there were these basement cafes styled to look like French bistros, but when you looked up at the ceiling it was covered with insane metal heating pipes and you went downstairs to the toilets and you'd find a corridor with 10 different doors and they all say private or are locked...

RP: And you ask what's in there, what's going on?

GDM: Exactly, and it stuck me that there are these veins of the city everywhere, these liminal spaces running around all the other spaces. And you are very close to them, but in a way the boundary is huge.

RP: You don't go there, or people don't go there. So when you do, you feel like you have discovered an unknown world. Its like you say "the veins of the city", the true veins of the city, that are clogged with all that shit! That's what it's all about, and I am happy that you see it in the same way. I am super inspired by those areas. Like you said, the ceiling that doesn't belong to the place, or the place that tries to be something else, but it's impaired by the physical nature of its location, but it tries anyway, and that clash is super inspiring. Of course, that clash gets used a lot, you can find open-ceiling concepts everywhere and certain things become chic, but I am very fascinated by the back side of the world, because I think it reflects maybe more truly upon ourselves than the storefront. The storefront is your Instagram picture with all your makeup on. The back-alley is you in the morning when you wake up.

GDM: You mention certain aesthetics becoming chic, but I think in the case of *Kane & Lynch 2*, it's hard for the look to become fashionable because it's very nihilistic. It uses those spaces to put you, literally, in the shit of the city, and make you feel

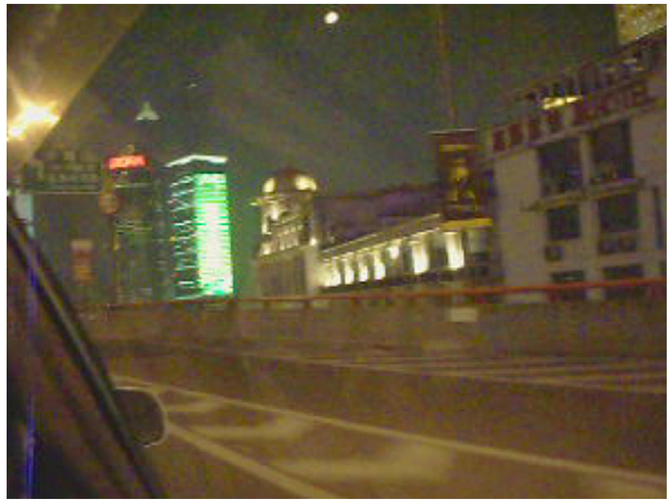
It's a love letter to the leftovers, when you are done and you go home.

Left and below: Reference images from the team's trip to Shanghai.

[redacted]

It's the past right in your face and then there is a super-tall Citibank neon skyscraper behind.

[redacted]



Those 5 years that represent what our game looks like, it's a pocket in time.

unwanted and isolated by the city.

RP: Exactly, these guys are escaping their bad decisions but then these bad decisions, they just keep on making them. That's the nihilism, right? you can't escape. And trying to hide the best they can, or trying to get out the best they can will take them through these strange appendices of the city. A city that is, and can be, something else, but not to these guys.

GDM: So if you set something 80% in the back-alleys of this city, but you aren't designing a full city, you are designing these little corridors that the player is going to run down, how do you imply the rest of the city? How do you suggest the presence of everything else?

RP: The funny thing about Shanghai is there is a whole bunch of gates, Iron gates, that block off areas. So we made a kit of main streets that we could place just beyond a gate, so you are often stuck behind a gate with some trash in front of it and you've gotta go left, but you can see straight ahead that there's a street with some parked cars and some lights. And then we built a whole bunch of neon skyscrapers, because the experience we had while being there, while walking the smaller streets with the tea kitchens and the strange shops, and having that very foreign experience, is that it's the past right in your face and then there is a super-tall Citibank neon skyscraper behind. So as often as possible we had that clash: the backdrop was the high-end neon future and the foreground was the derelict, old, abused, misrepresented areas. So simply by gating you off, but by making sure you can see past or through the buildings or a gate, that's how we built the illusion of a bigger world than you can access. You are caught like a rat in a maze, while having freedom, or salvation, or the future just across the way, but you will never reach it. That's part of creating that claustrophobic atmosphere in that huge space.

GDM: There is also a sense of what Shanghai's character contained in that image too, right? You can simultaneously see its imagined future, and also its imagined past. And in some sense both of those spaces are imaginary as opposed to real, because it will never become the cyberpunk dream of pure skyscrapers...

RP: Oh, oh, yes it will! That's the problem. But you are right that it is the imagined past and imagined future, meaning that the Shanghai we wrote a love letter to doesn't exist anymore. All those back-alleys have been torn down and now you have cheap, rose-gold glass skyscrapers in their place. Just a year or two after, a lot of the areas we visited were not there anymore. Because when China decides to build, or be something, it happens. Nobody is saying "these buildings are 200 years old shouldn't we...?" Nope. So the past is no longer there, to a large degree. It's gone. So in that sense, those 5 years that represent what our game looks like, it's a pocket in time.

GDM: Right, and there are some particular cities where you feel you can be more in touch with this process of change. I was in Bucharest over the winter, and Bucharest has very poor maintenance of old buildings, but lots of very beautiful old buildings. And so everywhere there are these decaying pieces of very beautiful architecture, and it's incredible. Having spent 10 years in London where everything which is old is preserved, and a line is drawn around it, and it is pointed at, the idea of leaving these beautiful old things to die slowly all around you and be constantly re-purposed, it's sad, but there is still something beautiful about that.

RP: It's very organic, and the fact that it doesn't get kept unnaturally alive and it gets to decay a little bit, there is beauty in that for sure. Of course you can argue whether or not the building will become unsafe and then get torn down and lost anyway, but the intermediate state is something I am very interested in. So, as you say, when it has changed purpose, and it's not loved by people with money anymore, that's when it becomes interesting. The purpose shifts, and the whole nature of the area shifts, and then you get the clash once again, like the cafe with the ceiling that doesn't fit. And you wonder what happened here, and then you try to figure out the history of the structure and the people living there, and that becomes interesting in itself. Rather than everything being perfect, like little bubbles of illusion. The real world is complicated and distributed, and the past and future are there together. That's what I see and that's why I am saying that *Kane & Lynch 2* is a cyberpunk love letter, because this is the future creeping into the spaces you thought you knew, but you never really did, because they are too complicated for you to understand.

GDM: This is particularly interesting in a game environment, this idea of the city as a process of constant change. Because many game cities, even if they are shown to be complex, are in a moment of stasis at the moment they appear in the game. They are at their height, or maybe they are in decline, but generally they are at a moment of stasis, especially if they are fictional. But *Kane &*

The real world is complicated and distributed, and the past and future are there together.

***Lynch 2*'s Shanghai, even though it is the same now as it was when it was made, is somehow engaging with aesthetics of constant change.**

RP: Its funny you say that, because during development we were like; these places are gone, this vibe we are looking for is disappearing. For example the empty lots, that we were told were kept empty to wait for the prices to rise. There would be a little street market, then an empty lot with grass and cement rubble, and then high rises. Now, that place has probably been sold and somebody has made a fortune and there's a high rise now. So there was a specific rhythm to how things were constructed in those years that is no longer there. So it's fun to see that when you build something that's supposed to represent, even though it's a skewed perspective, the present day, it disappears so quickly. Because if you make a game about Ancient Rome everyone understands, OK, it's gone, but here it is at its height. Or you make something in downtown London, you are going to have some newer skyscrapers here and there, but it's pretty much the same. St. Paul's is going to be there, right? In that sense, the fact that Shanghai has moved so quickly is quite unique, and it becomes the capturing of a moment in time.

GDM: I am still thinking about this idea of the back sides of things...

It's the idea that you have a structure and then you turn it inside out. That's a big thing in the game.

GDM: The city turned inside out.

RP: Exactly.

Sphinx & Pyramid 1916

The World Behind the Walls

Tomb Raider | Chris Priestman

Tombs, she said.

I couldn't believe it.

"They're still teaching that? But it's wrong," went my disappointed response.

My sister, like any other primary school teacher in the UK, was instructed to teach her impressionable class of children that the Pyramids of Giza were built as tombs. It's frightening how readily this theory—and it is only a theory—has been broadcasted as the truth. The British national curriculum has been teaching this to children for years, setting in hard stone their understanding of some of Egypt's most mysterious architecture, denying them the exhilaration of the unknown. What my sister would have ideally taught is that we still don't know exactly what the ancient Egyptians used the Giza pyramids for.

There are people who will use words like "definitely" to impose their thesis upon that megalithic masonry—a word they don't often have the right to use. But it's necessary in the field of Egyptology, where arguments based on conjecture are waged, and where academics have to compete with compelling stories told by UFOlogists and indigenous wisdom keepers. Many pyramids were used as tombs, there is evidence of that, but no mummified corpses have been found in Giza's, and many of its features cannot be understood in the funerary terms of ancient peoples, at least not as we've come to know them. The world's most famous pyramids may seem unassailable on an architectural scale but are easily shaped into new forms when subject to the chisels of interpretation.

The reason we're so eager to drape our theories and fantasies upon the ancient peoples who planned, designed, and built the Pyramids of Giza is simple. What we have brushed up from under the sands so far promises a wellspring of enlightenment. We know the Egyptians observed star movements, that they cultivated the annual rising and falling waters of the Nile, and that they could precisely cut (to the millimeter) huge masses of granite and then transport them across significant distances. We're still trying to figure out how, why, and when. The most enticing part is that some of their feats are baffling to us. What else might they still have to teach us? Without the facts to piece the answers together we rely upon our imaginations to create enchanting tales about our ancestral enigmas.

This mythmaking is still going strong today, even with all the advanced scientific equipment we have to aid us in uncovering the truth. You only have to go back as far as 2015 for

What's left is a possibility space—the unknown margins on the other side.

Left: Sphinx & Pyramid, Australian National Maritime Museum, 1916.

Bigger than a single man, a myth that haunted the collective imagination.

evidence, when Japanese radar specialist Hirokatsu Watanabe used a machine to scan Tutankhamun's tomb, the results purportedly revealing undiscovered rooms and objects behind the walls. It was thought to be Queen Nefertiti's long-lost tomb at the time. But then a *National Geographic* team performed their own scans and refuted Watanabe's discovery in May 2016. They were looking for a void to show up in their radar scans, which would indicate a hidden chamber—yet nothing showed up. What if the void had been filled in either by the effects of time and nature, or the Egyptian priests that Nefertiti and her husband's religious revolution angered? Without opening the wall of Tutankhamun's tomb up we will never truly know what's behind it. What's left is a possibility space that we can only fill with our countless fantasies—the unknown margins on the other side.

Over the past couple of centuries, these mysteries that surround the ancient peoples of Egypt and their preserved chambers has fueled a lot of adventure fiction. Entries in the genre are commonly a mix of literature and historical fact, authors filling in gaps left by missing evidence with their own thrilling dramas. This was especially the case after 1922 when the so-called "Curse of the Pharaohs" was introduced into populist thought. It came after the discovery of Tutankhamun's tomb, and the sudden death of Lord Carnarvon four months later, who had financed the expedition. In truth, Carnarvon had been killed by a mosquito bite, but Sherlock Holmes author Sir Arthur Conan Doyle famously attributed it to, instead, an ancient Egyptian curse. He repeated this idea in a number of interviews with the media and so it grew bigger than a single man, becoming a myth that haunted the collective imagination. Look to the pulp magazines and matinée serials of the early- and mid-20th century (with titles like "Secret of the Incas," "Valley of the Kings," and "Dust of Death") and you'll see how Conan Doyle's notion became so widespread. Since then, breaking into an ancient tomb has been considered an invitation for morbid torment.

As children of this school of thought, it hangs like frosted glass over our eyes every time we set our gaze upon a sarcophagus, a pyramid, or those old stones marked with hieroglyphs. We are hardly done with the "curse." Film series' like *The Mummy* and *Indiana Jones* continue to reinscribe it into popular thought. The latter in particular was conceived as an effort to revive the pulp fiction of the 1930s by George Lucas and Steven Spielberg, and so from 1981, Indiana Jones has served as the acceptable face of treasure-hunting imperialism. He was introduced to us by snatching an idol from a stone pedestal in a Peruvian temple, triggering an ancient booby trap. The scene has become iconic, embedded in our minds as one of the lasting images of pop culture. We're told the good guys are the ones recklessly invading ancient temples in the pursuit of treasure, or an apparently more noble cause under the guise of "preserving history." Home Video technology let us live perpetually in that fantasy, watching *Raiders of the Lost Ark* on repeat until the tape chewed itself apart. In the following decade, a man named Toby Gard had the idea to make a videogame modelled on Indiana Jones. He wanted to let players raid their own ancient Peruvian ruin for once, to snatch a treasure, to run from the inevitable boulder trap. In 1996 he offered up the virtual body of Lara Croft to do it in.

It's important to understand that the original *Tomb Raider* was made exclusively in a small studio located in Derby, England. Unlike the industrial scale of the pre-production efforts of the biggest videogames made today, the creators of *Tomb Raider* did not travel to any worldwide locations to conduct first-hand research or photograph textures to inform the construction of their virtual spaces. "We would have liked to go out to locations but we didn't get that opportunity," *Tomb Raider*'s biggest contributing level designer, Heather Gibson, told *Tomb of Ash*. Gibson and the rest of the team had to improvise and design the game using the resources that were available to them. "I found most of my textures in books which I purchased from a budget price bookshop in Derby," Gibson told *Tomb of Ash*. "I also sourced textures by modifying and distorting images found on the internet." It's a quaint idea that a large chunk of *Tomb Raider* was pieced together from a bookshop in Derby. But how far removed is the result from the source at this point?

By the time Gibson and the team had built a level and kitted it out to resemble the architecture of its intended geography, it had been through an early 3D modelling tool, a designer's mind, transported across printed paper, and captured by a photographer's subjective lens. And that's only the journey of the textures as they were transmuted from pigment on ancient stone to the downgraded facsimile the player sees. To fill the rest of their virtual voids, the team at Core Design had to rely on the myriad interpretations of the old cultures of Peru, Greece, and Egypt that all pull in different directions, contributing to a disjointed mosaic of information. That is then further obscured by popular myth the likes of Conan Doyle's inseparable "curse" and the fiction it inspired with its many booby-trapped tombs (which have little basis in fact). When Ms. Croft opens the huge stone doors cut into a

A site in which we collectively store our imagined secrets of the Earth.

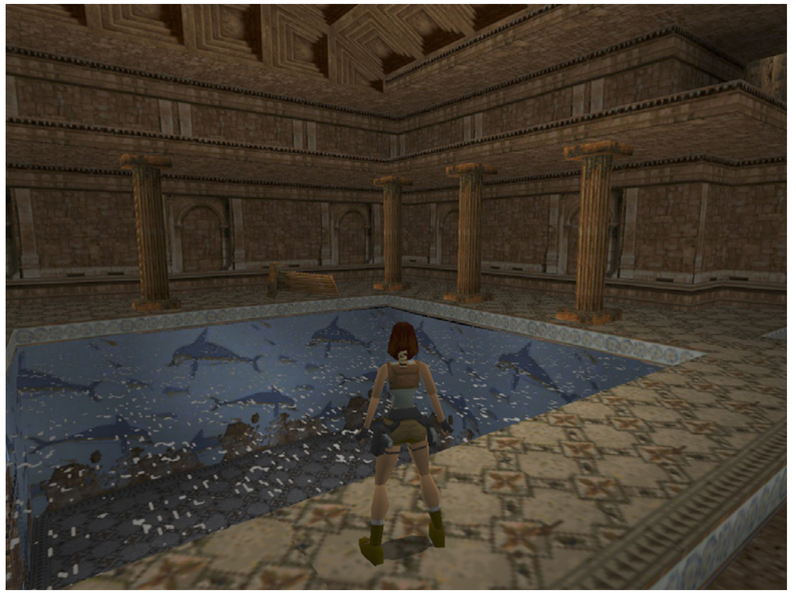
cold Peruvian mountain at the beginning of *Tomb Raider*, we don't enter a realistic recreation of an ancient structure, it's an imaginarium built of scrapbook theories, passed-down stories, and repurposed architecture.

The mystique and romance invested in *Tomb Raider*'s subject matter played into the designers' hands, or at least, they ensured to work with a narrative that made the most of it. The game follows archaeologist Lara Croft as she hunts down the three pieces of the Scion, each located in an ancient chamber spread across separate continents. When the pieces of the Scion are eventually unified, Croft then tries to stop the Atlantean queen Natla from using it to create an army of monstrosities that'll help bring forth a new age for Earth. What starts out as yet another treasure hunt is soon consumed by myth and fantasy, following the same path of so much other speculative fiction. This is no surprise, given how our modern relationship with tombs typically develops: we start with the theory taught to us in the classroom but can easily dismantle it, the supposed facts we learn at a young age quickly obscured or falsified by the exploits of Indiana Jones, or the arguments waged between scientists and religionists. In this way, facts blur into fictions, and so the ancient tomb becomes an other place filled with curses, gold, monsters, and lost knowledge—a site in which we collectively store our imagined secrets of the Earth.

If you look at *Tomb Raider* from a far enough distance, you can see how its creators make great use of architecture to compose this journey that starts at the outer reaches of reality and ends up in pure myth. Its first manmade location is the Lost City of Vilcabamba, which is the name of the actual "lost city of the Incas," destroyed around 1572. Vilcabamba plays the part of touchstone, connecting the game's spaces to our reality, but also allowing it a stepping stone into fantasy, where lost cities are suddenly found, explored, and robbed.

From there Lara moves to St Francis' Folly, a fictional place, but one with a name that reaches out through history to one of the revered figures of Roman Catholicism. Did St. Francis fund and design it or was it simply named after him? No answer is given and so its intended function is unknown. However, its geographical circumstance shares many similarities with the Metéora monasteries in Greece. Most of these constructions were built by hermit monks in the 14th century to escape the Ottoman invasion, and were made near-inaccessible due to sitting precariously on tall natural pillars—the perfect place for an undiscovered artefact to hide.

Right: One of Tomb Raider's Sphinxes.



Right and Above: The varied architectural styles of Tomb Raider's lost worlds.

A stepping stone into fantasy, where lost cities are suddenly found, explored, and robbed.

Of that purely conceptual other place that exists solely in our heads.

Next up is Khamoon, another lost city like Vilcabamba, but this time entirely invented by the game's creators. It is apparently located somewhere near the Valley of the Kings in Egypt, which is a plausible place for a lost city to still be hidden underground, given that tombs were discovered there as recently as December 2008. The possible existence of a buried city like Khamoon rides on the myths we perpetuate due to those unknown spaces under the Egyptian sands—the unearthed areas that scaffold our imaginations. What you might have trouble with accepting, though, is that Lara is the one to discover Khamoon, and all by herself. But that is explained by way of a vision, which she experiences when putting two pieces of the Scion together, showing her where the third is located. The level designers do themselves an extra favour by obscuring Lara's entrance to Khamoon: whereas most levels have visible entryways behind Lara's starting location, in Egypt there is only a sealed wall of rock, which perhaps suggests the way collapsed behind her. As to the name "Khamoon," it doesn't appear anywhere throughout history, but fans have speculated that the game's creators probably adapted it from Tutankhamun, or Egyptian words like "Ka" (part of the soul) and "Amun" (the King of the Gods).

The fourth and final destination of *Tomb Raider* is Atlantis. It's unlikely that it was a throwaway decision that saw the most famous of the lost cities follow the game's Egyptian levels. The two locations are connected, not by anything found in the natural world, but by the spoken words of "the sleeping prophet." That was the title given to Edgar Cayce, who was known for putting himself into a deep trance to surface his clairvoyant statements. In 1922, during one such trance, Cayce said that there is a "Hall of Records" yet to be unearthed from Egypt, which he said contains all the knowledge of the lost city of Atlantis. "There is a chamber or passage from the right forepaw of the [Sphinx] to this entrance of the Hall of Records, or chamber," Cayce said. No such passage or hall has been found either near Giza's famous Sphinx or anywhere else in the territory. But that hasn't stopped the search for it, nor the belief that it will one day be found. That said, it's highly unlikely, if such a passage did exist, that it would contain anything related to a city called Atlantis.

The first mention we have of Atlantis comes from Plato, who uses "Atlantis" as an allegory, as he did the cave in another of his stories. Plato uses Atlantis to express a moral message about ideal societies. In his story, the Atlanteans attack ancient Athens, which manages to repel the front. This causes the Atlanteans to fall out of favour with the gods who then sink their entire island to the bottom of the Atlantic Ocean. Geologists and scientists from various other fields have searched for Atlantis over the years and found nothing. Yet the myth persists as it captures our imagination and feeds our thirst for discovery. Atlantis now seems to serve us as a stand-in for all lost cities (or, indeed, lost continents) we don't know about or haven't yet found—it is, again, of that purely conceptual other place that exists solely in our heads.

Tomb Raider ends where we began, in one of the Great Pyramids, but one that was hidden under a layer of deep rock, and that belongs to Atlantis rather than Giza. The pyramid's function in the game isn't as a tomb, but the opposite; it's a huge living womb made of glass and sinew, a prism filled with nesting creatures ready to take over the world. Wild as it is, Tomb Raider's pyramid isn't out of place among the theories that assert aliens helped the Egyptians build the pyramids, in fact it almost feels like a tribute to that unfounded logic.

Taking the player through these lost cities, the existence of which is plausible (except Atlantis) if unlikely, *Tomb Raider*'s designers afforded themselves a liminal space to work in. They were able to create places that drew from real history and culture but that were also open to creative embellishment (the sequels forego this licence by travelling to present-day cities like Venice and London). This was a vital move considering not only the distance between the actual locations and the designers in Derby—not to mention the bandwidth of theories and fictions they had to filter—but also the 3D software they had to hand. Its most obvious characteristic is its foundation in orthogonal movement and spaces; breaking rooms up into visible grids and cubes, demanding a preference for sharp angles and geometry. This isn't an ideal system for trying to match the ornate designs of ancient architecture, as well as to add to them the impression that they are crumbling ruins. It's why one of the most remarkable achievements of *Tomb Raider* is the concerted effort to move beyond the stiff style forced by the software. Clever use of slanted pillars and sloping platforms imply ruin and entropy in the stones, deliberately at odds with the square movement of Lara Croft. There are times when a pillar that's been snapped in half is clearly meant to be used as a platform, but the incline of its surface makes it seem incapable of being traversed. And so the mere tilt of a line adds a sense of danger to each leap; the question of whether Croft will slide or stand always occupying the player's mind. The orthogonal architecture also encouraged players to count squares before taking a risky leap, using the Look button to get a reliable top-down grid

It is the spaces unknown to modern-day humanity that we grant an unbelievable suspension of time.

Right: One of Tomb Raider's strange self -sustaining ecosystems.

view: players learned how many squares Lara could cover with a standing and running jump, and used it to calculate safe paths up, down, and across. Players had to tip-toe through levels, triangulate their movement, always aware that a single slip-up could mean death. That system may seem dated these days, but it made for a slower, more thorough style of play, one that taught the player to respect the scale and shapes of the game's architecture in order to overcome it. Compare that to the colour-marked handholds that pock the walls of today's platformers, and it's clear to see that the more intimate relationship between player and geometry has been dropped in favour of flow and fake peril.

Another limitation of the "Room Editor" used to construct *Tomb Raider*'s 3D spaces, and how working around it affected the level design, was described by Gibson in conversation with Tomb of Ash. "The cave system [in the first level] meant that players didn't question the lack of sky and landscape which was difficult to produce with this engine," Gibson said. "I would have liked to have opened up the roof of the village areas but that was not possible at the time." As *Tomb Raider* is a game under a permanent ceiling, it asks us to take a tremendous leap into the dubious, accepting that whole cities, valleys, and palaces have been built underground or into mountains, and somehow avoided total obliteration by rockfall over thousands of years. An Egyptologist will tell you that there's no way ancient Egyptians would have built obelisks underground, as they have in *Tomb Raider*. But what do they know? It's only theorized that the obelisks were built in relation to the sun—that doesn't mean obelisks weren't built elsewhere, in the spaces under the sands we haven't yet found. The underground chambers of *Tomb Raider* play into the idea that a lot of the ancient people's history and culture is still hidden behind the walls, the kind of wall that Watanabe scanned with his radar, which promised a whole new branch of culture to discover. Wisely, *Tomb Raider*'s designers take liberties with the fact that we still don't know everything about the ancient Egyptians.

Once you've gone so far as to allow those kinds of concessions to *Tomb Raider* then you've began to knock over the dominos that will let you tackle its next ludicrous idea: that each of its interiors still have functioning ecosystems. Not only does water flow endlessly through carved channels without any sign of erosion, there are panthers, bears, wolves, heck even dinosaurs all perfectly preserved down there, eating, drinking, and mating—completely untouched (and frozen in animation) until Lara Croft comes along. In one level there is even a prominent green patch of palm trees that have grown healthily towards the ceiling with no visible sources of direct or indirect exposure to the sun. Impossible. But our minds can accept this as they're tainted by the tombs of Egypt which, no, don't contain self-sustaining zoos and gardens, but were chambers alive with the notion of perpetuating life. To justify the belief at the heart of mummification—that the dead would return—tombs were stocked with the material goods a ruler might need in the next life, which included the furniture, clothes, and jewellery that treasure hunters seek, but also more mundane necessities. "Tombs were also well provisioned with enough food and drink, including wine and beer, for royal feasting in the next world, as well as sacred objects meant to help the deceased achieve eternal life, even favoured companions," writes Brian Handwerk for *National Geographic*. *Tomb Raider* relies on the tacit association of tombs with eternal life to justify the blooming pockets of flora and fauna that it houses. As with the prehistoric environs conserved in the underground caverns of *Journey to the Center of the Earth* and the uncharted island in *The Land That Time Forgot*, it is the spaces unknown to modern-day humanity that we grant an unbelievable suspension of time.

Throughout each level in *Tomb Raider* there persists a masterful showcase of engineering, implicitly attributed to ancient builders, which are used as pieces in its many puzzles and traps. This is where the game really leans into our awe of the ancients and their inventions, as well as our eagerness to believe in the booby traps of fiction. In Khamoon, staircases are turned instantly into slopes and back again at the pull of a lever. Later, individual bridges have to be lowered to reach four classic Egyptian icons sat around the middle of an obelisk, which are then inserted into the faces of another obelisk, all of which is necessary to open a single door—two whole levels are dedicated to this single breach. Another door beyond that one is opened by turning a key in a lock found on the wall opposite to it. Take a moment to think about the engineering behind that and you have to imagine a complex orchestration of plates, latches, and cylinders connected behind at least three separate walls.

There's another lever, this time in Greece, that floods and drains a huge chamber known only as the "Cistern," which might well be a gigantic sewerage system. In fact, the levels in Greece make multiple use of underwater passages, filled with flushing waters, as if the game's designers wanted to create a whole fantasy world based on the Roman invention of sewers. You can see a similar effort in Peru,

Speaking in a tongue of optical illusions, invisible floors, and seemingly impossible leaps.

specifically the level “The Lost Valley,” which sees Croft retrieving the missing cogs from a machine that drops a large stone into a river, acting as a dam. Stopping the water flow grants her access to the hidden tomb of Qualopec where she finds the first piece of the Scion. One of the most compelling historical mysteries still being debated is how exactly the megaliths of ancient times were transported: how were the pyramids in Giza built so precisely? How was Stonehenge erected? There are Egyptian stones that show evidence of laser-cut precision. Surely nonsense, but how then did they manage such engineering, and what machines might they have used? The puzzle pieces and traps of *Tomb Raider* open our minds to the gamut of answers.

I had dreamt about that space, tantalized for years, thirsty for its treasures.

Playing *Tomb Raider* is more than a conversation with representations of our ancient past. It is made clear from the very start that its creators are more than a mouthpiece, and have a mind to hide their own secrets from the player. The first is an alcove in the beginning area of the game, which can only be accessed by using a triangular block, but it’s hidden by the matching textures of the wall behind it. Discovering that triangular block establishes an architectural language for the game’s secrets, hidden in every level, speaking in a tongue of optical illusions, invisible floors, and seemingly impossible leaps. I remember my dad employing my help to seek out each of the secrets on his first playthrough. He wouldn’t let me play the game myself as it was rated 15, and I was only seven at the time, but my extra pair of eyes were needed.

He lured me in by telling the tales of his odyssey through the game, as if he were a globetrotting adventurer in service of the British Museum, filling my young head with an atlas of dream architecture and fantastic events. His words had me imagining underwater tunnels found within a valley of dinosaurs, statues that suddenly jumped to life, enormous 3D sanctuaries bigger than any I’d seen in a game before. I was enamoured, and so were my friends; it wasn’t long until *Tomb Raider* became the talk of the school playground. We became unknowing rebels: while dry facts about Egypt’s pyramids were presented to us in the classroom, outside we would hold iconoclastic discussion. *Tomb Raider*’s secret areas turned the same architecture our teachers talked about into spaces of indeterminacy, inhabited by wonder and myth. Out of this came many rumours of hidden places across the game that unlocked new features when found. The one I remember most was supposed to let you play as Lara’s rival in the Greek levels, the cocksure Frenchman Pierre DuPont. It was said that you had to leap off a slope in St. Francis’ Folly at a certain point during Croft’s slide down it so that she could reach a doorway suspended on a wall opposite. Many of us tried (or asked our parents to) but none were able to pull off the required manoeuvre. And so the myth persisted.

Years later, I was able to play the entirety of *Tomb Raider* for myself at long last. I spent a long time trying to reach that doorway where the playable Pierre was said to be hidden. I had dreamt about that space, tantalized for years, thirsty for its treasures, imagining a whole other world in a room that I could only glance at momentarily. Whether I reached that secret room or not is by the by, it’s what it represents that matters. Take a moment to consider that.

Tomb Raider’s levels are born from our hopes for what lies beyond those ancient barriers we cannot or have not yet crossed. It’s a game that lets us explore what is behind the wall that Watanabe scanned with his radar. Yet the presence of that secret room, and others like it, in this imaginary place suggests that we don’t want the myths and mysteries to end, even if we make every effort in the opposite direction. As the supreme architects of our imagination, capable of shaping concepts for an entire universe either in our heads or in a videogame, we still cannot resist including those other spaces. As if an M. C. Escher drawing, we make them go on forever; rooms nested in rooms, secrets that contain yet more secrets. We cannot separate ourselves from them, those venues of possibility, the elusive houses of our curiosity.

CP

Chris Priestman is a freelance writer interested in experimental videogames, data errors, digital toys, and virtual architecture. He runs a small curation website called Warp Door, and writes regularly for The Guardian, Edge, and Gamasutra.

The Poetics of Progress

Inside | Gareth Damian Martin

Spatial logic becomes an expressive act when twinned with the spaces Inside draws the player through.

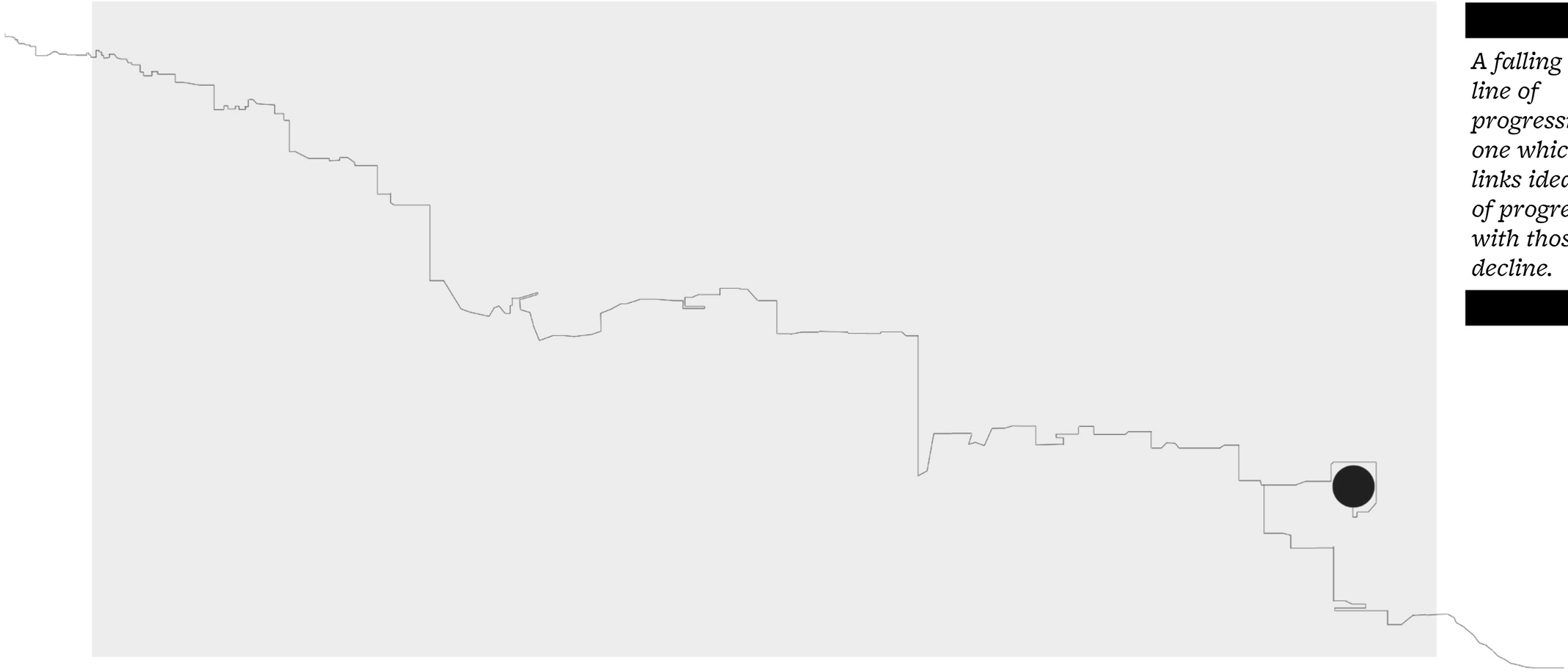
There are two vectors around which the structure of *Inside* is shaped: left-to-right and up-to-down. From the moment the unnamed and unknown boy at the heart of the game unsteadily slides down a sheer rock face onto the screen, the direction of movement, of momentum, of progress is set in place. This doesn't come as a surprise; 2D platform games, from the headlong charges of *Super Mario Bros.* and *Sonic the Hedgehog*, to the ornately self-aware *Braid* and *Super Meat Boy*, have always shown a predisposition for left-to-right movement. It's a matter of cognition, these worlds have inherited the direction of reading from language itself. And, in time, this logic has become a language in its own right, marking out distractions and secrets from the mainline of progress, and granting an innate sense of direction that is so often augmented by objective markers and waypoints in equivalent 3D worlds. It is also a language that we know Playdead, the developers of *Inside*, have a strong awareness of: The first secret of their debut game *Limbo* simply requires that the player goes right-to-left from their starting position, to go against the strangely compelling logic of 2 dimensional worlds.

Inside's relationship to this logic takes on a more complex form than *Limbo*'s simple reversal. While Playdead's debut felt unquestioning of the inherited conventions and structures of its platform-game heritage, *Inside* seeks to manipulate, examine and undermine them. Not through the formal trickery of say *Castlevania: Symphony of the Night*'s mid-game flipping of its entire world or the holistic growth patterns of *Metroid*'s revolutionary radial map, but through welding the genre's overriding logic to thematic concepts of progress, control and the architectural game of interior/exterior. *Inside* is marked out by this sophistication, this understanding that the spatial, genre-specific language it takes as its structure is not an unshakeable status quo, a rulebook to be treated with reverence and care, but a linguistic arrangement, a set of conventions that represent a way of speaking, of expressing, both through adherence and divergence, submission and rebellion.

It begins with the title, *Inside*, one that suggests both direction and place. Unlike *Limbo*, *Inside*'s opening screen offers no possibility of return, right-to-left, back into the dark, instead it allows only forward movement. In this way, the "inside" of the game's title becomes something ahead, a promised interior that we are drawn to enter. This idea is reinforced by the game's second vector; up-to-down. From the moment we begin the game, the player is running downhill, descending into a forest. This descent becomes one into a river, then a farm, then a city, then a flood, then and then and then. Though occasionally the player must climb over an obstacle, or scale a wall, they always return to the same level, in order to continue the descent. Looking at a map of the game, this becomes painfully clear: not one of the game's long descents is matched by the ascent that the player undertakes on the other side, and every ascent is more than equalled by its following descent. In mapping the game, we realise that this ceaseless decline traces a distinct overall shape to the player's experience, turning their path into an exponentially falling line of progression, one which, within the spatial logic of the game's genre, links ideas of progress with those of decline.

This spatial logic becomes an expressive act when twinned with the spaces *Inside* draws the player through. We begin in an ostensibly "natural" forest (though this is muddied later by a "fake" forest we encounter that mirrors this opening location) on the outskirts of farmland. From "untamed" nature, to agriculture, to factory farming, to urban decay, *Inside*'s opening act seems designed to suggest a move from the natural to the "man-made". This occurs in a pattern of incrementally returning images and structures that can be found throughout *Inside*. For example, we cross repeated fences in the forest, the outlying structures of human presence, to which roads are then added, first one in a forest crevasse, clearly an outlier, and then another raised road, this time fringed with power-lines. These signifiers mark our transition from "wild" land into controlled, planted and organised farmland. This might seem simple, but these patterns are then repeated and expanded upon as the game moves into darker territory. As we descend through an empty city, repurposed as some kind of human observation and processing centre, we find a series of recursive experiments.

As *Inside* progresses Modernist urban architecture, both dry and drowned, gives way to vast underlying industrial workings, which twist into the self-surveilling structures of experimental laboratories and test chambers. As it does the repeating structures give a sense of displacement, from billboard frames found both on the rooftops of the city and deep below it, to test chambers sunk in deep abyss and then found bright, functioning, renewed later down the line. This patterning is most palpable in the numbering that breaks the game's areas into distinct sections. There are ostensibly 4 scientific or industrial "facilities" in *Inside* (though number 1 appears to be missing), each carrying the same industrial motifs, a consistent scheme of numbers and in some cases the



A falling line of progression, one which links ideas of progress with those of decline.

Above: A map of Inside's descent, showing how, despite the illusion of a return to the surface, the games structure, architecture and even its horizon line descends impossibly.

This dark project is simply the newest iteration of "progress" in its fullest form.

same hallways and equipment. Although describing *Inside*'s numbering of its architecture like this seems reductive: This is no logical world of carefully segmented spaces and well maintained, functional "facilities", it is dreamlike, unreal. Perhaps it would be more accurate to say then that there are 4 numbered "insides" or interiors. These 4 interiors—if we take the forest and farmland, on the evidence of the later "fake forest" we encounter, as the first interior—then we have the core of Inside's recursive descent, 4 interiors, 4 experiments, 4 circles of descent.

It is this structure of recurring symbolism and spatial motifs linked in a continuous, unreal, descending chain that gives *Inside* its distinctive feel. It is one that somehow resembles a prose poem: each of its segments logical and prosaically readable in isolation, but combined in an overriding structure that is contiguous, loosely or thematically connected, and narratively open. This literary quality is only enhanced by the left-to-right, up-to-down way in which we are offered to read it, the headlong, irresistible movement of reading written language replicated in interactive form. And it is also literary connections that give us the key by which we might break open this unnerving descent and understand the underlying currents it follows.

Hidden in numerical cyphers on the glass of observation windows in the 4th and final "interior" of *Inside* are the two phrases "Busy Monster" and "Manunkind". This is a direct reference to the E. E Cummings poem, *Pity this Busy Monster, Manunkind*, written in 1944. One of Cumming's idiosyncratic "sonnets" it presents a critique of technological progress built from a dense and complex set of unwinding lines.

Cumming's poem is defined by a series of inversions; the "not" that follows the titular line and the later "is not" that follows "a world of made", the overuse of the "un" prefix and the final, shifting line break which turns "a hell" into "a hell of a good universe". Through the haze of these spatially constructed pieces of doublespeak emerges both a distaste of the relentless onward progress of science and technology and also a fascination with it. Cummings suggests that technology might be both mankind's tool of ascension and its downfall, the poet's carefully machined language flashing, blade-like, between both positions at once. Playdead's inclusion of a direct reference to this ornate poem is obviously designed to sharpen the point of its meta-narrative and provide a signpost for curious players in search of answers, but it equally serves to highlight the game's poetic form. Like Cummings in *Manunkind*, Playdead

pity this busy monster, manunkind,

pity this busy monster, manunkind,

not. Progress is a comfortable disease:
your victim (death and life safely beyond)

plays with the bigness of his littleness
--- electrons deify one razorblade
into a mountainrange; lenses extend
unwish through curving wherewhen till unwish
returns on its unself.
A world of made
is not a world of born --- pity poor flesh

and trees, poor stars and stones, but never this
fine specimen of hypermagical

ultraomnipotence. We doctors know

a hopeless case if --- listen: there's a hell
of a good universe next door; let's go

E.E Cummings

refuses to provide a direct attack on technological progress. Instead *Inside*'s ever-descending structures seem to suggest the same fascination with the artifacts of science and industry, while tying, as I put forward earlier in the piece, their sense of progress to both a symbolic and a physical decline. The game's globular submarine, for example, feels like a gesture towards the naive technological wonders of Jules Verne, and yet it is the tool for uncovering not undersea wonders but a flooded city full of twitching, fish-eaten corpses still artificially tethered to life. It is no coincidence that at the near bottom of *Inside*'s pit, after a descent through ravaged, drowned and dead worlds, we find a fully functional laboratory complex, calmly thrumming with the routine of its diligent workers. Here we find Cumming's *Manunkind*, hard at work, the trail of destruction erased from their collective memory. As the recurring symbols of our descent have taught us, this dark project is simply the newest iteration of "progress" in its fullest form.

This, along with its connection to Cummings' work, seems to suggest *Inside* is aligned with literary modernism. A wide-ranging and fluctuating artistic movement that sought to deal with the onset of Western modernity and the dehumanising scale of its cities, warfare and industry, many writers grouped under literary modernism found themselves equally appalled and fascinated by the changing world around them. Questioning society as a project and the assumed provenance of human progress, as well as turning an introverted perspective on the world, writers like T. S. Eliot, Knut Hamsun, Mina Loy and Franz Kafka depicted unrelentingly systems, decaying masses, psychological trauma and a world that was both fractured and declining. In order to do this they attempted to renew literary form, stripping it of rules and limitations and questioning and re-imagining its formal conventions. Both *Inside*'s structure, which refuses attempts to classify all its parts into a singular fictional "universe", and its themes of the dangers of progress and the rise of inhuman, oppressive systems, connect to this wider artistic project, and yet we are looking at a work which is completely absent of written language. Not only that, but with a setting which suggests perhaps the late 1970s or 1980s, and having been created this side of the millennium, *Inside* can be aesthetically linked to works like Eliot's *The Wasteland* and Kafka's *The Trial*, but it cannot be grouped within them.

Instead *Inside*'s text-less form and use of architecture and space as expressive tools connect it to responses to modernity found elsewhere. Its spaces, which in the absence of written text remain the game's primary language, poeticise modernity and its structures: Turning factories into deadly puzzle boxes, and cities into bizarre parade grounds. Each of these architectural arrangements the game presents provides a "situation" that seems to reconfigure the world as we know it into a series of opaque relations. The machines, experiments and structures that make up its descent remain opaque in their purpose, overdesigned and almost beautifully ornate.

The puzzles that Playdead fill these spaces with only further accentuate the odd, constructed nature of these environments, something that is acknowledged by the dotted pieces of evidence that suggest the entire game is taking place within some vast experimental facility. Then there are the in-between structures, the vast walls that separate each of the 4 "interiors" from one another. Each of these resembles the space between the sets in a film studio, oddly clean and shadowed by the support struts of the surrounding structures. Stand in one of them for long enough (between interior 2 and 3) and the player will trigger someone to lean out of and close an open door in the background, as if they were watching from behind the scenes.

When I think of architectural forms that display the same poetic arrangements and playful, self-awareness, I instantly think of the work of Alexander Brodsky and Ilya Utkin; two Russian "paper architects" who in the 1980s produced a series of copper plate etchings as entries to international architecture competitions. Disillusioned with the prevalent utilitarian designs of their era, they instead sought to create absurd and poetic responses to modernity that might reshape the city as a space of opacity, mystery and high symbolism. Not fanciful, aspirational ideas, but concrete manifestations of their vision of the modern city as a dying, fractious space, they stand out as unique responses to modernity. In one such work, *Comfort in the Metropolis*, Brodsky and Utkin depict faceless tower blocks topped with a forest of antennas and frames, not unlike *Inside*'s dead city. Their proposal? In a section of a tiny apartment, part of a shipwreck, crammed in between the toilet and the kitchen table. In another piece, *The Intelligent Market* they propose a labyrinth of towering pillars, each topped with a statue and clad in paper adverts, written information and offers. Images show shadowy figures sat at a table at its outskirts and a stray dog picking its way across the wasteland. An inscription reads "We spend years and years wandering in a maze of feverish searching of knowledge and finally understand that we have learned nothing." One other striking proposal,

A use of architecture and space that foregrounds its possibility as a poetic form.

“We spend years and years wandering in a maze of feverish searching of knowledge and finally understand that we have learned nothing.”

Right: The space between the scenes.

Left and above: Inside's classrooms, cities and test chambers.

[redacted]

Segregation, opression and violence are not narrated, they are witnessed, felt and acted-out.

[redacted]

These are the relationships on which the dual engines of modernity and progress feed.

Diomede II, shows a gridded city from above, split in two by a vast river or flood. One side of the city is labelled USSR, the other USA, with a second image showing the central memorial, a dome surrounded by scaffolded spires, sunken in the middle of that expanse of water.

These satirical, poetic, minor toned proposals treat architecture in the same way that Playdead treats *Inside*'s shadowy spaces. Literary in their influences and their finished forms, they turn buildings into narratives, monuments into memories and structures into philosophies. Just as Brodsky and Utkin were motivated by both their disappointment in the utilitarian architecture they saw around them, and the struggle of mankind dealing with its self-made crisis of modernity, so Playdead, in creating *Inside*, feels motivated by the same distaste with the unsophisticated, utilitarian form of many games, and inspired by the existential problems of modernity. When they place a darkly comic inspection of mindless drones in what appears to be the remains of a school, or when they sink one city beneath another as its rotting twin, they are engaging with a use of architecture and space that foregrounds its possibility as a poetic form. The result perhaps resembles scenography more than architecture: a series of spaces whose relations are activated by movement and presence of bodies, a set of potential situations, ready to be explored. These situations are at the heart of *Inside*'s aesthetic power. They mean that when the game presents us with a row of towering CCTV cameras, equipped with wire-fed police tasers, we are encountering not just an in-game challenge but a literalisation of a surveillance society. Segregation, opression and violence are not narrated, or fed into the game's enviroments via dialogue and exposition. Instead they are witnessed, felt and in the case of the decerebrated slaves the player must use to their advantage, acted-out.

Playdead stop short of targeting these barbed arrangements at the specific events and structures of our society, but when they draw our eye from a pristine elevated train network with a handful of commuters idling on the platform, down to the smog shrouded arches beneath, where livestock carriages of docile, tightly-packed slaves rumble through, is there any need? These are the relationships on which the dual engines of modernity and progress feed, and *Inside* refuses to flinch in its depiction of who is crushed under those great wheels. And yet it does so without demonising either side of the unequal split: the witnesses and oppressors it depicts, standing at the sidelines, are men, women and notably, fidgeting children, placidly observing the atrocities that secure their status. An image that is painfully, intimately familiar.

Inside lays this series of situations and images along its descent as a poet lays lines of verse down the page. Its choice of genre, the venerable 2D platformer, allows it this boldness. The logic it borrows drives the player from that first, almost comically naive image of a young boy in the forest, all the way to its ultimate reversal and negation in the precisely observed laboratories that await in the depths. In doing so it renews the expressive potential of its form, much like literary modernism sought to do at the turn of the century. Appropriately enough, it doesn't do so by chasing the spectre of progress, by tying itself to some technological marvel. Instead it does so through a process of widening, of twisting conventions and structures into thematic scaffolding for a compelling exploration of ideas of control, progress and ultimately the nature of mankind. *Inside* is not the answer to a question, any more than it is a coherent fictional reality. Instead it is a set of philosophies, atmosphere and ideas made (virtually) concrete, a playfully perverse piece of manipulation and, appropriately enough, a piece of progress into the dark.

GDM

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